

2008 FISH TISSUE AND SEDIMENT MONITORING PLAN WATER MONITORING AND ASSESSMENT



April 8, 2008

Introduction

The Virginia Department of Environmental Quality (DEQ), Office of Water Monitoring and Assessment is responsible for the design and execution of the Statewide Fish Tissue and Sediment Monitoring Program. This document provides information concerning the proposed stations for monitoring fish tissue and sediment during 2008 and the rationale for the station selections.

Objective

The objective of the Statewide Fish Tissue and Sediment Monitoring Program is to systematically assess and evaluate, using a multi-tier screening, water bodies in Virginia in order to identify toxic contaminant(s) accumulation with the potential to adversely affect human users of the resource. A second objective of the program is to determine the presence of toxic chemical contaminants in the aquatic environment which have the potential to adversely affect the aquatic biological community. Data collected will be used to quantify human health risks and ecological/environmental health conditions. In addition, follow-up studies are conducted when problems are found and/or when recommended by the Virginia Department of Health (VDH) through a Memorandum of Agreement between VDH and DEQ. VDH uses data generated by this program to evaluate the need for issuing or modifying fish consumption advisories. The DEQ employs the data to assess water quality for 305(b) Report /303(d) Impaired Water Listing and Total Maximum Daily Load (TMDL) determinations.

Sampling Design

The water bodies of Virginia are separated into fourteen river basins and subbasins (see Table 1). In the past, fish tissue and sediment were sampled in all fourteen of the river basins within a five-year cycle following procedures stated in the DEQ Quality Assurance/Quality Control Project Plan for the Fish Tissue and Sediment Monitoring Program (1998). In April 2000, the General Assembly amended section 62.1-44.19:5 of the code of Virginia which instructed the DEQ to sample all of the river basins within a three-year rotational cycle contingent upon available funding. Between 2001 and 2003 a three year rotation was employed, but due to resource limitations, the program has reverted to the original five year cycle.

Table 1. River Basins in Virginia.

	River Basins	Basin Code
1)	Potomac River Subbasin	1A
2)	Potomac River-Shenandoah River Subbasin	1B
3)	James River	2-
4)	Rappahannock River	3-
5)	Roanoke River	4A
6)	Yadkin River	4B
7)	Chowan-Chowan River Subbasin	5A
8)	Chowan-Albemarle Sound Subbasin	5B
9)	Tennessee and Big Sandy River-Big Sandy Subbasin	6A
10)	Tennessee and Big Sandy River-Clinch Subbasin	6B
11)	Tennessee and Big Sandy River-Holston Subbasin	6C
12)	Chesapeake Bay, Atlantic Ocean, and Small Coastal	7-
13)	York River	8-
14)	New River	9-

The monitoring sites which have been selected for the 2008 routine statewide sampling season will be primarily located in the following river basins: York River Basin and Chesapeake Bay-Atlantic Ocean, and Small Coastal drainages. A total of 85 fish tissue and sediment sampling stations have been selected. In addition to 67 routine sampling stations, the sampling stations list includes 14 stations by special request located in the Potomac and embayment and four in the lower James basin. All of the sampling sites are ranked from 1 to 2 with 1 being the high priority and 2 the lower priority. The higher priority is based on known or potential water quality problems at the sampling location, special requests by other DEQ units, VDH or citizen groups, and/or if the sampling location is a prominent resource for recreational or commercial fishing. Extensive effort will be made to complete all of the stations selected, but priority will be given to the higher ranked stations.

The sampling sites include freshwater and brackish or saltwater locations. The samples that will be collected at each freshwater station include one sediment sample and three to five tissue composite samples (5-10 individuals of the same species per composites) consisting of fish species that are typically consumed by humans. Samples will include at least one bottom feeder (e.g. catfish sp.), which may be highly exposed to chemically contaminated sediments compared to other species, and two to four upper and middle trophic level feeders (e.g. bass and sunfish species, respectively.), which may be exposed to chemical contaminants via biomagnification.

Collection of targeted species for tissue analysis at the brackish and saltwater sites may be problematic since only 10-15% of the fish and shellfish species at the stations are year-round residents and few of the resident species are typically consumed by humans (Murdy et. al. 1997). It is likely that sample collection techniques will yield several species of migratory fish and shellfish that are consumed by humans and a few resident fish species that are not consumed by humans. Contaminants found in migratory fishes may not reflect local pollution problems but may be used to calculate human health risks from consumption. Contaminants found in sediment and resident fishes may be used to identify local inputs of bioaccumulative contaminants. Therefore, the samples that will be collected at each brackish or saltwater station include one sediment sample and three to five composite samples (5-10 individuals of the same species per composite) consisting of an edible migratory, an edible or non-edible resident, and an edible or non-edible bottom species. For a detailed list of species that will be targeted at each brackish or saltwater station (see Table 2).

The entire data set should help determine if any unacceptable human health risks are associated with fish consumption, and if local inputs of bioaccumulative contaminants are in tissue and/or sediment at levels of concern. Samples collected will be analyzed for metal and/or organic contaminants by contract laboratories at the College of William and Mary - Virginia Institute of Marine Science.

Station Selection Criteria

The stations in each basin have been selected to produce site specific conclusions and provide spatial coverage of the entire basin. The following criteria were used to select the 2008 sampling stations:

- Historical Data Review
- Spatial Distribution
- Specific Water Quality Problems
- Major Tributary Status
- External Request from other VADEQ offices, State Agencies, and Citizen Groups
- Point Source Input
- Nonpoint Source
- Major Fishery

The attached references were used in selecting the sampling stations. The water body ID number, station number, priority rank, river mile, latitude, longitude, county, criteria for selection, and corresponding USGS topographical survey map name for each proposed sampling station are provided (see Table 3). Summary maps showing the location of all of the proposed sampling stations are attached (see figures1-4).

Sample Collection and Reporting

Fish tissue and sediment samples will be collected from the early spring through late fall, 2008. Analytical data for all of the samples should be received from the laboratory by the end of June 2009. The data will be tabulated as received and sent to VDH per an October 2000 Memorandum of Agreement between the VDH and DEQ. VDH will make an evaluation regarding potential human health impacts due to the consumption of contaminated fish and issue fish consumption advisories or bans as needed.

The tabulated data will also be sent to the water quality monitoring and assessment managers for review and use in 305(b) reporting and assessed in the 2010 305(b) assessment cycle. The data will also be posted on the DEQ web site at: www.deq.virginia.gov/fishtissue/ for use by the citizens of the Commonwealth and the public at large.

Table 2. Target species at each of the brackish water or saltwater stations.

Migratory Fish	Resident Fish	Benthic Fish/Shellfish
(Normally consumed	(Some may not be consumed	(Some may not be consumed
by humans)	by humans)	by humans)
Striped Bass	White Perch	Oyster spp.
Spot	Yellow Perch	Clam spp.
Atlantic Croaker	Killifish, Banded	Blue Crab
Weak Fish	Killifish, Striped	Summer Flounder
Black Sea Bass	Killifish,Rainwater	Smallmouth Flounder
Spotted Seatrout	Killifish, Marsh	Oyster Toadfish
Black Drum	Killifish, Spotfin	Hogchoker
Red Drum	Mummichogs	Tongue Fish
Silver Perch	Sheepshead Minnow	Channel Catfish
Northern Kingfish	Silverside, Inland	White Catfish
Southern Kingfish	Silverside, Rough	
Gulf Kingfish	Silverside, Atlantic	
Bluefish	Bay Anchovy	
Hickory Shad		
Alewife		
American Shad		
Blueback Herring		

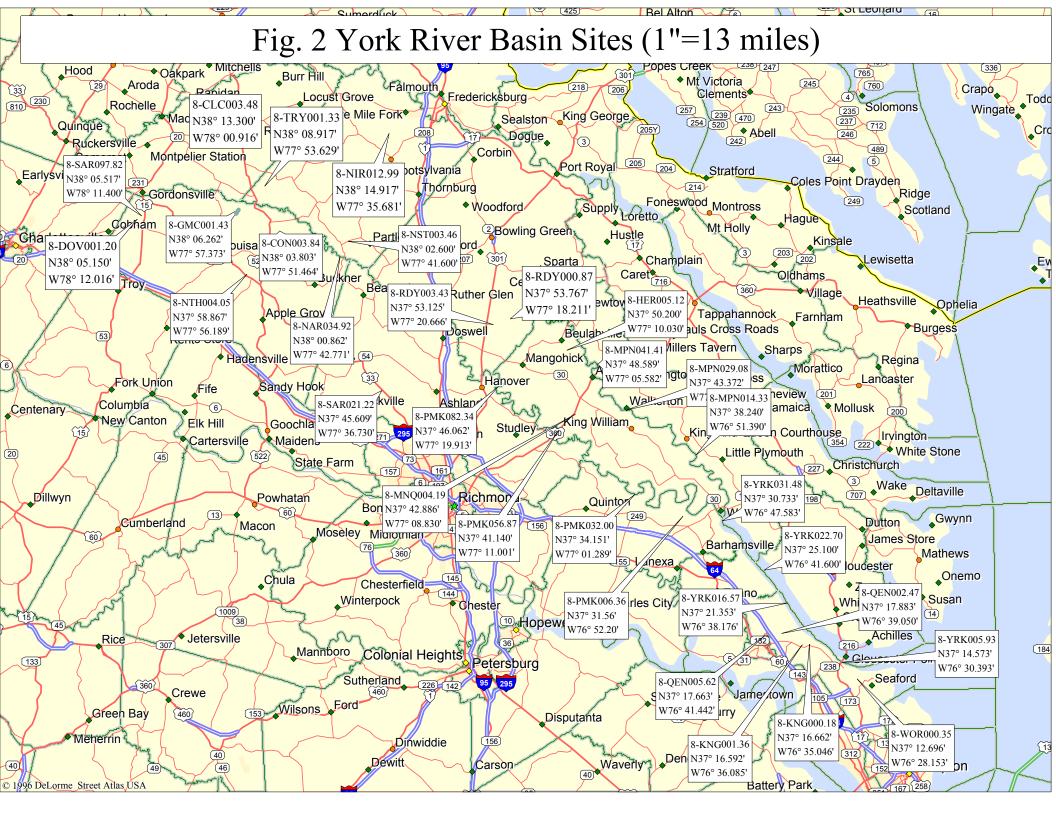
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Milford Bay near Callis	<u>~</u>
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						, i			PCB in Gizzard Shad, As in Blue	
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10	7-NOR003.65	North Divor	1	D COAD	N27 25 066	W76 25 662	Mathaura	Mara Nack	Shad	Coastal P.2. 2003 Data
19	7-NOR003.65	Piankatank River near the	ı	P-C04R	N37 25.066	W76 25.663	Mathews	Ware Neck	Silau	Coastal P.2, 2003 Data
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20	7-PNK019.85	end of Rt. 644	2	P-C03E	N37 33.547	W76 33.399	Middlesex	Saluda	Pb in Brown Bullhead	2003 Data
		Ware River near the end of								
		Rt. 621 (Gloucester Co)	2	P-C05E	N37 24.022	W76 29.383	Gloucester	Ware Neck	Pb in Blue Crab, PCB in G. Shad	PB in Blue Crab, PCB in G. Shad 2003
22	7-WIN000.88	Winter Harbor off Rt. 608		P-C04E	N37 22.600	W76 15.783	Mathews	Mathews	Spatial Distribution, Major Fishery	-
	A 414' O									
	Atlantic Oceai	n and Small Coastal Drainage	e-Northeri	n Neck	T			I	1	1998 Fish Tissue Data, 2002 305b
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23	7-COC000.40	Cockrell Creek	1	P-C01E	N37 49.302	W76 16.873	Northumberland	Reedville	B. Crab, PCB in Spot & Croaker	Coastal P.1, 2003 Data
									Impaired Watershed DO, As in	
									Croaker, Spot, Blue Crab, Pb in Blue	2002 305b Report . Appen. B. Ches. Bay
24	7-DYM000.00	Dymer Creek	2	P-C01E	N37 39.860	W76 19.817	Lancaster	Fleets Bay	fish	& Small Coastal P.1, 2003 Data
		Great Wicomico River ~.5								
		mile downstream from end of							Chrysene & Benzo(a)anthracene in	1998 Fish Tissue Data, 2002 305b Report
		Rt. 707, i.e. Off Cedar Point.							, ,	· · · · · · · · · · · · · · · · · · ·
0=	- 014/000-0-	Rt. 707, i.e. Oli Cedai Poliit.		D 0045	=0 000	11/20 04 042		l	,	Draft. Appen. B. Ches. Bay & Small
25	7-GWR007.97		1	P-C01E	N37 52.083	W76 24.217	Northumberland	Lancaster	Croaker & G. Shad	Coastal P.1, 2003 data.
										1998 Fish Tissue Data, 2002 305b
									Mercury in Sediment, As in B. Crab,	Report. Appen. B. Ches. Bay & Small
26	7-IND001.80	Indian Creek	1	P-C01E	N37 41.919	W76 21.072	Lancaster	Fleets Bay	Croaker, Menhaden, PCB in Spot	Coastal P.1, 2003 Data
		North Branch Onancock			nesapeake Bay					
27	7-0NF000.20		2		N37 42.841	W75 45.194	Accomack	Pungoteague	Fecal Probem, Onancock STP outfall	
27		North Branch Onancock				W75 45.194	Accomack	Pungoteague	Fecal Probem, Onancock STP outfall	
	7-0NF000.20	North Branch Onancock Creek Chesapeake Bay near	2	T-C11E	N37 42.841					
27 28		North Branch Onancock Creek Chesapeake Bay near Kiptopeke State Park		T-C11E		W75 45.194 W75 59.182	Accomack Northampton	Pungoteague Townsend	Fecal Probem, Onancock STP outfall Spatial Distribution, Major Fishery	
28	7-0NF000.20 7-CHE005.38	North Branch Onancock Creek Chesapeake Bay near Kiptopeke State Park Pocomoke River near mouth	2	T-C11E T-C16E	N37 42.841 N37 09.920	W75 59.182	Northampton	Townsend	Spatial Distribution, Major Fishery	
	7-0NF000.20	North Branch Onancock Creek Chesapeake Bay near Kiptopeke State Park Pocomoke River near mouth	2	T-C11E T-C16E	N37 42.841				Spatial Distribution, Major Fishery Spatial Distribution, Major Fishery	
28	7-0NF000.20 7-CHE005.38 7-POC002.30	North Branch Onancock Creek Chesapeake Bay near Kiptopeke State Park Pocomoke River near mouth of Pitts Creek	2 2	T-C11E T-C16E T-C09E	N37 42.841 N37 09.920 N37 58.850	W75 59.182 W75 37.900	Northampton Accomack	Townsend Saxos	Spatial Distribution, Major Fishery Spatial Distribution, Major Fishery 2006 Benthic Impairment, Spatial	Small Coastal P.4
28	7-0NF000.20 7-CHE005.38 7-POC002.30	North Branch Onancock Creek Chesapeake Bay near Kiptopeke State Park Pocomoke River near mouth	2	T-C11E T-C16E T-C09E	N37 42.841 N37 09.920	W75 59.182	Northampton	Townsend	Spatial Distribution, Major Fishery Spatial Distribution, Major Fishery 2006 Benthic Impairment, Spatial	
28	7-0NF000.20 7-CHE005.38 7-POC002.30 7-SBB000.17	North Branch Onancock Creek Chesapeake Bay near Kiptopeke State Park Pocomoke River near mouth of Pitts Creek Sandy Bottom Branch	2 2 1	T-C11E T-C16E T-C09E T-C10R	N37 42.841 N37 09.920 N37 58.850 N37 54.767	W75 59.182 W75 37.900	Northampton Accomack	Townsend Saxos	Spatial Distribution, Major Fishery Spatial Distribution, Major Fishery 2006 Benthic Impairment, Spatial	Small Coastal P.4
28	7-0NF000.20 7-CHE005.38 7-POC002.30 7-SBB000.17 Atlantic Ocean	North Branch Onancock Creek Chesapeake Bay near Kiptopeke State Park Pocomoke River near mouth of Pitts Creek	2 2 1	T-C11E T-C16E T-C09E T-C10R Shore At	N37 42.841 N37 09.920 N37 58.850 N37 54.767	W75 59.182 W75 37.900	Northampton Accomack	Townsend Saxos	Spatial Distribution, Major Fishery Spatial Distribution, Major Fishery 2006 Benthic Impairment, Spatial	Small Coastal P.4
28 29 30 31	7-0NF000.20 7-CHE005.38 7-POC002.30 7-SBB000.17 Atlantic Ocean 7-ASW003.36	North Branch Onancock Creek Chesapeake Bay near Kiptopeke State Park Pocomoke River near mouth of Pitts Creek Sandy Bottom Branch and Small Coastal Drainage Assawoman Creek	2 2 1 1 1 e-Eastern	T-C11E T-C16E T-C09E T-C10R Shore At	N37 42.841 N37 09.920 N37 58.850 N37 54.767 Iantic Ocean N37 51.168	W75 59.182 W75 37.900 W75 35.500	Northampton Accomack Accomack	Townsend Saxos Hallwood Bloxom	Spatial Distribution, Major Fishery Spatial Distribution, Major Fishery 2006 Benthic Impairment, Spatial Distribution Spatial Distribution, Major Fishery	Small Coastal P.4
28 29 30 31	7-0NF000.20 7-CHE005.38 7-POC002.30 7-SBB000.17 Atlantic Ocean	North Branch Onancock Creek Chesapeake Bay near Kiptopeke State Park Pocomoke River near mouth of Pitts Creek Sandy Bottom Branch and Small Coastal Drainage	2 2 1 1 1 e-Eastern 2	T-C11E T-C16E T-C09E T-C10R Shore At	N37 42.841 N37 09.920 N37 58.850 N37 54.767	W75 59.182 W75 37.900 W75 35.500	Northampton Accomack Accomack	Townsend Saxos Hallwood	Spatial Distribution, Major Fishery Spatial Distribution, Major Fishery 2006 Benthic Impairment, Spatial Distribution Spatial Distribution, Major Fishery	Small Coastal P.4 2006 305B Report
28 29 30 31	7-0NF000.20 7-CHE005.38 7-POC002.30 7-SBB000.17 Atlantic Ocean 7-ASW003.36	North Branch Onancock Creek Chesapeake Bay near Kiptopeke State Park Pocomoke River near mouth of Pitts Creek Sandy Bottom Branch and Small Coastal Drainage Assawoman Creek	2 2 1 1 1 e-Eastern 2	T-C11E T-C16E T-C09E T-C10R Shore At	N37 42.841 N37 09.920 N37 58.850 N37 54.767 Iantic Ocean N37 51.168	W75 59.182 W75 37.900 W75 35.500	Northampton Accomack Accomack	Townsend Saxos Hallwood Bloxom	Spatial Distribution, Major Fishery Spatial Distribution, Major Fishery 2006 Benthic Impairment, Spatial Distribution Spatial Distribution, Major Fishery Spatial Distribution, Major Fishery	Small Coastal P.4 - 2006 305B Report - 1998 Fish Tissue Data, 2002 305b
28 29 30 31 32	7-0NF000.20 7-CHE005.38 7-POC002.30 7-SBB000.17 Atlantic Ocean 7-ASW003.36 7-CHI003.77	North Branch Onancock Creek Chesapeake Bay near Kiptopeke State Park Pocomoke River near mouth of Pitts Creek Sandy Bottom Branch and Small Coastal Drainage Assawoman Creek Chincoteague Inlet	2 2 1 1 1 2 P-Eastern 2 2 2	T-C11E T-C16E T-C09E T-C10R Shore At T-D02E T-D01E	N37 42.841 N37 09.920 N37 58.850 N37 54.767 Iantic Ocean N37 51.168 N37° 55.547	W75 59.182 W75 37.900 W75 35.500 W75° 31.865 W75° 23.403	Northampton Accomack Accomack Accomack Accomack	Townsend Saxos Hallwood Bloxom Chincoteague East	Spatial Distribution, Major Fishery Spatial Distribution, Major Fishery 2006 Benthic Impairment, Spatial Distribution Spatial Distribution, Major Fishery Spatial Distribution, Major Fishery Pb in Mummichug, As in Spot, B.	Small Coastal P.4 - 2006 305B Report - 1998 Fish Tissue Data, 2002 305b Report. Appen. B. Ches. Bay & Small
28 29 30 31 32	7-0NF000.20 7-CHE005.38 7-POC002.30 7-SBB000.17 Atlantic Ocean 7-ASW003.36 7-CHI003.77	North Branch Onancock Creek Chesapeake Bay near Kiptopeke State Park Pocomoke River near mouth of Pitts Creek Sandy Bottom Branch and Small Coastal Drainage Assawoman Creek	2 2 1 1 1 e-Eastern 2	T-C11E T-C16E T-C09E T-C10R Shore At T-D02E T-D01E	N37 42.841 N37 09.920 N37 58.850 N37 54.767 Iantic Ocean N37 51.168	W75 59.182 W75 37.900 W75 35.500	Northampton Accomack Accomack	Townsend Saxos Hallwood Bloxom	Spatial Distribution, Major Fishery Spatial Distribution, Major Fishery 2006 Benthic Impairment, Spatial Distribution Spatial Distribution, Major Fishery Spatial Distribution, Major Fishery Pb in Mummichug, As in Spot, B. Crab, V. Oyster, Pb in Mummichog	Small Coastal P.4 - 2006 305B Report - 1998 Fish Tissue Data, 2002 305b
28 29 30 31 32 33	7-0NF000.20 7-CHE005.38 7-POC002.30 7-SBB000.17 Atlantic Ocean 7-ASW003.36 7-CHI003.77 7-LTM000.80	North Branch Onancock Creek Chesapeake Bay near Kiptopeke State Park Pocomoke River near mouth of Pitts Creek Sandy Bottom Branch and Small Coastal Drainage Assawoman Creek Chincoteague Inlet Little Mosquito Creek	2 2 1 1 1 P-Eastern 2 2 1	T-C11E T-C16E T-C09E T-C10R Shore At T-D02E T-D01E	N37 42.841 N37 09.920 N37 58.850 N37 54.767 Iantic Ocean N37 51.168 N37 55.547 N37 57.027	W75 59.182 W75 37.900 W75 35.500 W75° 31.865 W75° 23.403 W75 27.075	Northampton Accomack Accomack Accomack Accomack Accomack	Townsend Saxos Hallwood Bloxom Chincoteague East Chincoteague	Spatial Distribution, Major Fishery Spatial Distribution, Major Fishery 2006 Benthic Impairment, Spatial Distribution Spatial Distribution, Major Fishery Spatial Distribution, Major Fishery Pb in Mummichug, As in Spot, B. Crab, V. Oyster, Pb in Mummichog As in Sand Shark, Spot, B. Crab, PB	Small Coastal P.4 - 2006 305B Report - 1998 Fish Tissue Data, 2002 305b Report. Appen. B. Ches. Bay & Small Coastal P.4, 2003 Data
28 29 30 31 32	7-0NF000.20 7-CHE005.38 7-POC002.30 7-SBB000.17 Atlantic Ocean 7-ASW003.36 7-CHI003.77	North Branch Onancock Creek Chesapeake Bay near Kiptopeke State Park Pocomoke River near mouth of Pitts Creek Sandy Bottom Branch and Small Coastal Drainage Assawoman Creek Chincoteague Inlet Little Mosquito Creek	2 2 1 1 1 2 P-Eastern 2 2 2	T-C11E T-C16E T-C09E T-C10R Shore At T-D02E T-D01E	N37 42.841 N37 09.920 N37 58.850 N37 54.767 Iantic Ocean N37 51.168 N37° 55.547	W75 59.182 W75 37.900 W75 35.500 W75° 31.865 W75° 23.403	Northampton Accomack Accomack Accomack Accomack	Townsend Saxos Hallwood Bloxom Chincoteague East	Spatial Distribution, Major Fishery Spatial Distribution, Major Fishery 2006 Benthic Impairment, Spatial Distribution Spatial Distribution, Major Fishery Spatial Distribution, Major Fishery Pb in Mummichug, As in Spot, B. Crab, V. Oyster, Pb in Mummichog	Small Coastal P.4 - 2006 305B Report - 1998 Fish Tissue Data, 2002 305b Report. Appen. B. Ches. Bay & Small
28 29 30 31 32 33	7-0NF000.20 7-CHE005.38 7-POC002.30 7-SBB000.17 Atlantic Ocean 7-ASW003.36 7-CHI003.77 7-LTM000.80	North Branch Onancock Creek Chesapeake Bay near Kiptopeke State Park Pocomoke River near mouth of Pitts Creek Sandy Bottom Branch and Small Coastal Drainage Assawoman Creek Chincoteague Inlet Little Mosquito Creek	2 2 1 1 1 P-Eastern 2 2 1	T-C11E T-C16E T-C09E T-C10R Shore At T-D02E T-D01E	N37 42.841 N37 09.920 N37 58.850 N37 54.767 Iantic Ocean N37 51.168 N37 55.547 N37 57.027	W75 59.182 W75 37.900 W75 35.500 W75° 31.865 W75° 23.403 W75 27.075	Northampton Accomack Accomack Accomack Accomack Accomack	Townsend Saxos Hallwood Bloxom Chincoteague East Chincoteague	Spatial Distribution, Major Fishery Spatial Distribution, Major Fishery 2006 Benthic Impairment, Spatial Distribution Spatial Distribution, Major Fishery Spatial Distribution, Major Fishery Pb in Mummichug, As in Spot, B. Crab, V. Oyster, Pb in Mummichog As in Sand Shark, Spot, B. Crab, PB	Small Coastal P.4 - 2006 305B Report - 1998 Fish Tissue Data, 2002 305b Report. Appen. B. Ches. Bay & Small Coastal P.4, 2003 Data
28 29 30 31 32 33	7-0NF000.20 7-CHE005.38 7-POC002.30 7-SBB000.17 Atlantic Ocean 7-ASW003.36 7-CHI003.77 7-LTM000.80	North Branch Onancock Creek Chesapeake Bay near Kiptopeke State Park Pocomoke River near mouth of Pitts Creek Sandy Bottom Branch and Small Coastal Drainage Assawoman Creek Chincoteague Inlet Little Mosquito Creek	2 2 1 1 1 P-Eastern 2 2 1	T-C11E T-C16E T-C09E T-C10R Shore At T-D02E T-D01E	N37 42.841 N37 09.920 N37 58.850 N37 54.767 Iantic Ocean N37 51.168 N37 55.547 N37 57.027	W75 59.182 W75 37.900 W75 35.500 W75° 31.865 W75° 23.403 W75 27.075	Northampton Accomack Accomack Accomack Accomack Accomack	Townsend Saxos Hallwood Bloxom Chincoteague East Chincoteague	Spatial Distribution, Major Fishery Spatial Distribution, Major Fishery 2006 Benthic Impairment, Spatial Distribution Spatial Distribution, Major Fishery Spatial Distribution, Major Fishery Spatial Distribution, Major Fishery Pb in Mummichug, As in Spot, B. Crab, V. Oyster, Pb in Mummichog As in Sand Shark, Spot, B. Crab, PB in Sand Shark	Small Coastal P.4 - 2006 305B Report - 1998 Fish Tissue Data, 2002 305b Report. Appen. B. Ches. Bay & Small Coastal P.4, 2003 Data 2003 Data
28 29 30 31 32 33 34	7-ONF000.20 7-CHE005.38 7-POC002.30 7-SBB000.17 Atlantic Oceal 7-ASW003.36 7-CHI003.77 7-LTM000.80 7-OSS000.20	North Branch Onancock Creek Chesapeake Bay near Kiptopeke State Park Pocomoke River near mouth of Pitts Creek Sandy Bottom Branch and Small Coastal Drainage Assawoman Creek Chincoteague Inlet Little Mosquito Creek Oyster Slip	2 2 1 1 2	T-C11E T-C16E T-C09E T-C10R Shore At T-D02E T-D01E T-D01E	N37 42.841 N37 09.920 N37 58.850 N37 54.767 lantic Ocean N37 51.168 N37° 55.547 N37 57.027 N37 17.295	W75 59.182 W75 37.900 W75 35.500 W75° 31.865 W75° 23.403 W75 27.075 W75 55.315	Northampton Accomack Accomack Accomack Accomack Accomack Accomack Northampton	Townsend Saxos Hallwood Bloxom Chincoteague East Chincoteague Cheriton	Spatial Distribution, Major Fishery Spatial Distribution, Major Fishery 2006 Benthic Impairment, Spatial Distribution Spatial Distribution, Major Fishery Spatial Distribution, Major Fishery Spatial Distribution, Major Fishery Pb in Mummichug, As in Spot, B. Crab, V. Oyster, Pb in Mummichog As in Sand Shark, Spot, B. Crab, PB in Sand Shark Pyrene in Sediment, As in Croaker B.	Small Coastal P.4 - 2006 305B Report - 1998 Fish Tissue Data, 2002 305b Report. Appen. B. Ches. Bay & Small Coastal P.4, 2003 Data 2003 Data 2002 305b Report. Appen. B. Ches. Bay &
28 29 30 31 32 33 34	7-0NF000.20 7-CHE005.38 7-POC002.30 7-SBB000.17 Atlantic Ocean 7-ASW003.36 7-CHI003.77 7-LTM000.80	North Branch Onancock Creek Chesapeake Bay near Kiptopeke State Park Pocomoke River near mouth of Pitts Creek Sandy Bottom Branch and Small Coastal Drainage Assawoman Creek Chincoteague Inlet Little Mosquito Creek Oyster Slip	2 2 1 1 1 P-Eastern 2 2 1	T-C11E T-C16E T-C09E T-C10R Shore At T-D02E T-D01E T-D01E	N37 42.841 N37 09.920 N37 58.850 N37 54.767 Iantic Ocean N37 51.168 N37 55.547 N37 57.027	W75 59.182 W75 37.900 W75 35.500 W75° 31.865 W75° 23.403 W75 27.075	Northampton Accomack Accomack Accomack Accomack Accomack	Townsend Saxos Hallwood Bloxom Chincoteague East Chincoteague	Spatial Distribution, Major Fishery Spatial Distribution, Major Fishery 2006 Benthic Impairment, Spatial Distribution Spatial Distribution, Major Fishery Spatial Distribution, Major Fishery Spatial Distribution, Major Fishery Pb in Mummichug, As in Spot, B. Crab, V. Oyster, Pb in Mummichog As in Sand Shark, Spot, B. Crab, PB in Sand Shark	Small Coastal P.4 - 2006 305B Report - 1998 Fish Tissue Data, 2002 305b Report. Appen. B. Ches. Bay & Small Coastal P.4, 2003 Data 2003 Data 2002 305b Report. Appen. B. Ches. Bay &
28 29 30 31 32 33 34	7-ONF000.20 7-CHE005.38 7-POC002.30 7-SBB000.17 Atlantic Oceal 7-ASW003.36 7-CHI003.77 7-LTM000.80 7-OSS000.20	North Branch Onancock Creek Chesapeake Bay near Kiptopeke State Park Pocomoke River near mouth of Pitts Creek Sandy Bottom Branch and Small Coastal Drainage Assawoman Creek Chincoteague Inlet Little Mosquito Creek Oyster Slip	2 2 1 1 2	T-C11E T-C16E T-C09E T-C10R Shore At T-D02E T-D01E T-D01E	N37 42.841 N37 09.920 N37 58.850 N37 54.767 lantic Ocean N37 51.168 N37° 55.547 N37 57.027 N37 17.295	W75 59.182 W75 37.900 W75 35.500 W75° 31.865 W75° 23.403 W75 27.075 W75 55.315	Northampton Accomack Accomack Accomack Accomack Accomack Accomack Northampton	Townsend Saxos Hallwood Bloxom Chincoteague East Chincoteague Cheriton	Spatial Distribution, Major Fishery Spatial Distribution, Major Fishery 2006 Benthic Impairment, Spatial Distribution Spatial Distribution, Major Fishery Spatial Distribution, Major Fishery Pb in Mummichug, As in Spot, B. Crab, V. Oyster, Pb in Mummichog As in Sand Shark, Spot, B. Crab, PB in Sand Shark Pyrene in Sediment, As in Croaker B. Crab, Sand Shark, Pb in Mummichog	Small Coastal P.4 - 2006 305B Report - 1998 Fish Tissue Data, 2002 305b Report. Appen. B. Ches. Bay & Small Coastal P.4, 2003 Data 2003 Data 2002 305b Report. Appen. B. Ches. Bay &
28 29 30 31 32 33 34	7-0NF000.20 7-CHE005.38 7-POC002.30 7-SBB000.17 Atlantic Oceal 7-ASW003.36 7-CHI003.77 7-LTM000.80 7-OSS000.20 7-PRT001.30	North Branch Onancock Creek Chesapeake Bay near Kiptopeke State Park Pocomoke River near mouth of Pitts Creek Sandy Bottom Branch and Small Coastal Drainage Assawoman Creek Chincoteague Inlet Little Mosquito Creek Oyster Slip Parting Creek	2 2 1 1 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	T-C11E T-C16E T-C09E T-C10R Shore At T-D02E T-D01E T-D01E T-D05R T-D04E	N37 42.841 N37 09.920 N37 58.850 N37 54.767 Iantic Ocean N37 51.168 N37° 55.547 N37 57.027 N37 17.295 N37 30.860	W75 59.182 W75 37.900 W75 35.500 W75° 31.865 W75° 23.403 W75 27.075 W75 55.315 W75 48.312	Northampton Accomack Accomack Accomack Accomack Accomack Accomack Accomack Northampton Accomack	Townsend Saxos Hallwood Bloxom Chincoteague East Chincoteague Cheriton Exmore	Spatial Distribution, Major Fishery Spatial Distribution, Major Fishery 2006 Benthic Impairment, Spatial Distribution Spatial Distribution, Major Fishery Spatial Distribution, Major Fishery Spatial Distribution, Major Fishery Pb in Mummichug, As in Spot, B. Crab, V. Oyster, Pb in Mummichog As in Sand Shark, Spot, B. Crab, PB in Sand Shark Pyrene in Sediment, As in Croaker B. Crab, Sand Shark, Pb in Mummichog As exceed SV in King Fish, Blue	Small Coastal P.4 - 2006 305B Report - 1998 Fish Tissue Data, 2002 305b Report. Appen. B. Ches. Bay & Small Coastal P.4, 2003 Data 2002 305b Report. Appen. B. Ches. Bay & Small Coastal P.4, 2003 Data
28 29 30 31 32 33 34	7-0NF000.20 7-CHE005.38 7-POC002.30 7-SBB000.17 Atlantic Oceal 7-ASW003.36 7-CHI003.77 7-LTM000.80 7-OSS000.20 7-PRT001.30	North Branch Onancock Creek Chesapeake Bay near Kiptopeke State Park Pocomoke River near mouth of Pitts Creek Sandy Bottom Branch and Small Coastal Drainage Assawoman Creek Chincoteague Inlet Little Mosquito Creek Oyster Slip	2 2 1 1 2	T-C11E T-C16E T-C09E T-C10R Shore At T-D02E T-D01E T-D01E T-D05R T-D04E	N37 42.841 N37 09.920 N37 58.850 N37 54.767 lantic Ocean N37 51.168 N37° 55.547 N37 57.027 N37 17.295	W75 59.182 W75 37.900 W75 35.500 W75° 31.865 W75° 23.403 W75 27.075 W75 55.315	Northampton Accomack Accomack Accomack Accomack Accomack Accomack Northampton	Townsend Saxos Hallwood Bloxom Chincoteague East Chincoteague Cheriton	Spatial Distribution, Major Fishery Spatial Distribution, Major Fishery 2006 Benthic Impairment, Spatial Distribution Spatial Distribution, Major Fishery Spatial Distribution, Major Fishery Spatial Distribution, Major Fishery Pb in Mummichug, As in Spot, B. Crab, V. Oyster, Pb in Mummichog As in Sand Shark, Spot, B. Crab, PB in Sand Shark Pyrene in Sediment, As in Croaker B. Crab, Sand Shark, Pb in Mummichog As exceed SV in King Fish, Blue	Small Coastal P.4 - 2006 305B Report - 1998 Fish Tissue Data, 2002 305b Report. Appen. B. Ches. Bay & Small Coastal P.4, 2003 Data 2003 Data 2002 305b Report. Appen. B. Ches. Bay &
28 29 30 31 32 33 34 35	7-0NF000.20 7-CHE005.38 7-POC002.30 7-SBB000.17 Atlantic Ocean 7-ASW003.36 7-CHI003.77 7-LTM000.80 7-OSS000.20 7-PRT001.30 7-RAC000.00	North Branch Onancock Creek Chesapeake Bay near Kiptopeke State Park Pocomoke River near mouth of Pitts Creek Sandy Bottom Branch and Small Coastal Drainage Assawoman Creek Chincoteague Inlet Little Mosquito Creek Oyster Slip Parting Creek Raccoon Creek	2 2 1 1 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	T-C11E T-C16E T-C09E T-C10R Shore At T-D02E T-D01E T-D01E T-D05R T-D04E	N37 42.841 N37 09.920 N37 58.850 N37 54.767 Iantic Ocean N37 51.168 N37° 55.547 N37 57.027 N37 17.295 N37 30.860	W75 59.182 W75 37.900 W75 35.500 W75° 31.865 W75° 23.403 W75 27.075 W75 55.315 W75 48.312	Northampton Accomack Accomack Accomack Accomack Accomack Accomack Accomack Northampton Accomack	Townsend Saxos Hallwood Bloxom Chincoteague East Chincoteague Cheriton Exmore	Spatial Distribution, Major Fishery Spatial Distribution, Major Fishery 2006 Benthic Impairment, Spatial Distribution Spatial Distribution, Major Fishery Spatial Distribution, Major Fishery Spatial Distribution, Major Fishery Pb in Mummichug, As in Spot, B. Crab, V. Oyster, Pb in Mummichog As in Sand Shark, Spot, B. Crab, PB in Sand Shark Pyrene in Sediment, As in Croaker B. Crab, Sand Shark, Pb in Mummichog As exceed SV in King Fish, Blue	Small Coastal P.4 - 2006 305B Report - 1998 Fish Tissue Data, 2002 305b Report. Appen. B. Ches. Bay & Small Coastal P.4, 2003 Data 2003 Data 2002 305b Report. Appen. B. Ches. Bay & Small Coastal P.4, 2003 Data
28 29 30 31 32 33 34 35	7-0NF000.20 7-CHE005.38 7-POC002.30 7-SBB000.17 Atlantic Oceal 7-ASW003.36 7-CHI003.77 7-LTM000.80 7-OSS000.20 7-PRT001.30	North Branch Onancock Creek Chesapeake Bay near Kiptopeke State Park Pocomoke River near mouth of Pitts Creek Sandy Bottom Branch n and Small Coastal Drainage Assawoman Creek Chincoteague Inlet Little Mosquito Creek Oyster Slip Parting Creek Raccoon Creek	2 2 1 1 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	T-C11E T-C16E T-C09E T-C10R Shore At T-D02E T-D01E T-D01E T-D05R T-D04E	N37 42.841 N37 09.920 N37 58.850 N37 54.767 Iantic Ocean N37 51.168 N37° 55.547 N37 57.027 N37 17.295 N37 30.860	W75 59.182 W75 37.900 W75 35.500 W75° 31.865 W75° 23.403 W75 27.075 W75 55.315 W75 48.312	Northampton Accomack Accomack Accomack Accomack Accomack Accomack Accomack Northampton Accomack	Townsend Saxos Hallwood Bloxom Chincoteague East Chincoteague Cheriton Exmore	Spatial Distribution, Major Fishery Spatial Distribution, Major Fishery 2006 Benthic Impairment, Spatial Distribution Spatial Distribution, Major Fishery Spatial Distribution, Major Fishery Spatial Distribution, Major Fishery Pb in Mummichug, As in Spot, B. Crab, V. Oyster, Pb in Mummichog As in Sand Shark, Spot, B. Crab, PB in Sand Shark Pyrene in Sediment, As in Croaker B. Crab, Sand Shark, Pb in Mummichog As exceed SV in King Fish, Blue	- 2006 305B Report - 1998 Fish Tissue Data, 2002 305b Report. Appen. B. Ches. Bay & Small Coastal P.4, 2003 Data 2003 Data 2002 305b Report. Appen. B. Ches. Bay & Small Coastal P.4, 2003 Data
28 29 30 31 32 33 34 35	7-0NF000.20 7-CHE005.38 7-POC002.30 7-SBB000.17 Atlantic Ocean 7-ASW003.36 7-CHI003.77 7-LTM000.80 7-OSS000.20 7-PRT001.30 7-RAC000.00	North Branch Onancock Creek Chesapeake Bay near Kiptopeke State Park Pocomoke River near mouth of Pitts Creek Sandy Bottom Branch and Small Coastal Drainage Assawoman Creek Chincoteague Inlet Little Mosquito Creek Oyster Slip Parting Creek Raccoon Creek sin Lake Orange near Dam	2 2 1 1 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	T-C11E T-C16E T-C09E T-C10R Shore At T-D02E T-D01E T-D01E T-D05R T-D04E T-D06E	N37 42.841 N37 09.920 N37 58.850 N37 54.767 Iantic Ocean N37 51.168 N37° 55.547 N37 57.027 N37 17.295 N37 30.860	W75 59.182 W75 37.900 W75 35.500 W75° 31.865 W75° 23.403 W75 27.075 W75 55.315 W75 48.312	Northampton Accomack Accomack Accomack Accomack Accomack Accomack Accomack Northampton Accomack	Townsend Saxos Hallwood Bloxom Chincoteague East Chincoteague Cheriton Exmore	Spatial Distribution, Major Fishery Spatial Distribution, Major Fishery 2006 Benthic Impairment, Spatial Distribution Spatial Distribution, Major Fishery Spatial Distribution, Major Fishery Pb in Mummichug, As in Spot, B. Crab, V. Oyster, Pb in Mummichog As in Sand Shark, Spot, B. Crab, PB in Sand Shark Pyrene in Sediment, As in Croaker B. Crab, Sand Shark, Pb in Mummichog As exceed SV in King Fish, Blue Mussel, Black Sea Bass, Blue Crab	Small Coastal P.4 - 2006 305B Report - 1998 Fish Tissue Data, 2002 305b Report. Appen. B. Ches. Bay & Small Coastal P.4, 2003 Data 2003 Data 2002 305b Report. Appen. B. Ches. Bay & Small Coastal P.4, 2003 Data

Site #	River Mile	Stream Name	Priority	WBID	Latitude	Longitude	City/County	Topo Name	Problem	Reference
		Contrary Creek arm of Lake							PCB 2 Species, Sed. Cu, Pb, & Zn,	2000 Data Set. 2002 305b Report. Appen.
38	8-CON003.84	Anna	1	N-F07L	N38 03.803	W77 51.464	Louisa	Lake Anna West	PCB & Hg in Carp	B. York P.1, 2003 Data
		Lake Gordonsville near dam								
39	8-DOV001.20	(Dove Creek)	1	N-F01L	N38 05.150	W78 12.016	Louisa	Boswells Tavern	Impaired	2006 303D list
		Goldmine Creek arm of Lake								2000 Data Set. 2002 305b Report. Appen.
40	8-GMC001.43	Anna	1	N-F07L	N38 06.262	W77 57.373	Louisa	Mineral	PCB 2 Species, PCB in Carp 2003	B. York P.1, 2003 Data
									Not Supporting-pH, Hg in C. Pickerel,	
									Bluegill, Yellow bullhead Cat,	2002 305b Report. Appen. B. York P.3,
41	8-HER005.12	Herring Creek near Rt. 609	2	N-F21R	N37 50.200	W77 10.030	King William	Beulahville	Largemouth Bass, & Flier	2003 Data
		The state of the s							PCB in Croaker, Spot, Mummichog,	
									Gizzard Shad, Pb in Croaker, As in	2000 Data Set. 2002 305b Report Draft.
12	8-KNG000.18	King Creek	1	T-E27E	N37 16.558	W76 34.958	York	Clay Bank	Croaker 2003	Appen. B. York P.5, 2003 Data
72	0-1(14/0000.10	King Oreck	'	1-1 Z/L	1437 10.330	VV70 34.330	TOIK	Clay Dalik	Spatial Distribution, PCB in Croaker	2000 Data Set. 305b Report. Appen. B.
43	8-KNG001.36	King Crook	1	T F27F	N37 16.592	W76 36.085	York	Clay Bank	& G. Shad 2003	York P.5
43	8-KNG001.36	King Creek	<u> </u>	1-F2/E	N37 10.592	VV / 0 30.U85	YORK	Clay Bank		
		Manageria Occasiona and Di. 000		D = 40D	NOT 10 000	14/77 00 000	1.6: 14.6:00	01101	Not Supporting, Hg in Largemouth	2002 305b Report. Appen. B. York P.2,
44	8-MNQ004.19	Manquin Creek near Rt. 360	2	P-F13R	N37 42.886	W77 08.830	King William	Old Church	Bass 2003	2003 Data
		Mattaponi River near end of	_							
45	8-MPN014.33	Rt. 602, Melrose Landing	2	P-F25E	N37 38.240'	W76 51.390'	King William	Truhart	Spatial Distribution, Major Fishery	DGIF Freshwater Fishing Guide 2007
		Mattaponi River near Rt. 629								
46	8-MPN029.08	at Walkerton		P-F23E	N37 43.372	W77 01.438	King William	King William	Spatial Distribution, Major Fishery	DGIF Freshwater Fishing Guide 2007
									PCB, Arsenic, & Benzo(b) &	
									benzo(k)fluoranthene, Hg in Channel	
									Catfish, Largemouth Bass, Yello	
									Perch, Pb in Channel Catfish,	
									Largemouth Bass, Yellow Perch G.	2000 Data Set. 2002 305b Report. Appen.
		Mattaponi River near Rt. 360,							Shad PCB in Striped Bass and G.	B. York P.3, Recommended for Delisting
47	8-MPN041.41	Old Hall Landing	1	P-E23B	N37 48.589	W77 05.582	King William	Aylett	Shad	in 2006 WQA Report
	0-WII 140-1111	Lake Anna near Dam (North	- '	1 -1 2010	1407 40.000	VV11 00.002	Tang William	Aylott	Hg in Carp, PCB in Carp and	1995 & 2000 Data Set. 2002 305b Report.
48	0 NADO24 02	Anna River)	1	N-F07L	N38 00.862	W77 42.771	Louise	Lake Anna East	Channel Catfish	Appen. B. York P.1
40	8-NAR034.92	Ni Reservoir near dam (Ni	- 1	IN-FU/L	N30 UU.002	VV// 42.// I	Louisa	Lake Allia East	Chariner Cathon	Appen. B. Tolk F. I
40	0 NUDO40 00	`		N E451	N20 44 047	W77 0F CO4	Carata di carata	Cantaninania	Cratial Distribution Major Fishers	DOIE Freehouster Fishing Guide 2007
49	8-NIR012.99	River)			N38 14.917	W77 35.681	Spotsylvania	Spotsylvania	Spatial Distribution, Major Fishery	DGIF Freshwater Fishing Guide 2007
50	8-NST003.46	Northeast Creek	1	N-F09R	N38 02.600	W77 41.600	Spotsylvania	Lake Anna East	Spatial Distribution	PCB problems in watershed
		Northeast Creek Reservoir					l			
51	8-NTH004.05	(Northeast Creek)		N-F03L	N37 58.867	W77 56.189	Louisa	Pendleton	Spatial Distribution, Major Fishery	DGIF Freshwater Fishing Guide 2007
										2002 Data Set. 305b Report. Appen. B.
52	8-PMK006.36	Pamunkey River near Eltham	1	P-F14E	N37 31.552	W76 52.182	King William	West Point	PCB 1 Species	York P.2
		Pamunkey River near Lester							Sed Zn, PCB 1 Species 1995, Hg in	1995 Data, 2000 Data 305b Report.
53	8-PMK032.00	Manor	1	P-F14E	N37 34.151	W77 01.289	King William	Tunstall	Largemouth Bass & Channel Catfish	Appen. B. York P.2, 2003 Data
		Pamunkey River at Rt. 360							Hg in Spotted Bass, Bluecatfish,	
54	8-PMK056.87	near Old Church	2	P-F13E	N37 41.140	W77 11.001	Hanover	Manguin	Redbreast Sunfish	2003 Data
		Pamunkey River near Rt. 614						1.		
		at Normans Bridge off Rt.								
55	8-PMK082.34	301	2	P-F12R	N37 46.062	W77 19.913	Hanover	Hanover	Pb in Spotted Bass, Channel Catfish	2003 Data
- 55	0-1 WINOUZ.34	301		1 -1 121	1137 40.002	VV11 13.313	Tianovei	Tianovei	Pb in Bluecrab. PCB in Croaker.	1994 Data, 2000 Data 305b Report Draft.
EG	8-QEN002.47	Queen Creek	1	т госг	N127 17 002	M/76 20 050	York	Williamahura	Spot, Gizzard Shad	Appen. B. York P.4, 2003 Data
56	8-QEN002.47	Queen Creek	<u> </u>	1-F20E	N37 17.883	W76 39.050	YORK	Williamsburg	Spot, Gizzard Sriad	
				T 5005		14/70 44 440		1.4000	D D DOD . O	1994 Data, 2000 Data 305b Report.
57	8-QEN005.62		1	1-F26E	N37 17.663	W76 41.442	York	Williamsburg	Pb in Bluecrab, PCB in Gizzard Shad	Appen. B. York P.4, 2003 Data
1		Reedy Mill Pond (Reedy	1		1					
58	8-RDY000.87	Creek near Rt. 601)	2	N-F21L	N37 53.767	W77 18.211	Caroline	Penola	Spatial Distribution	DGIF Freshwater Fishing Guide 2007
		Reedy Creek near Rt. 648 -								
59	8-RDY003.43	Sunshine Road	2		N37 53.125	W77 20.666	Caroline	Penola	Spatial Distribution	DGIF Freshwater Fishing Guide 2007
60	8-SAR021.22	South Anna near Rt. 33	2	P-F04R	N37 45.609	W77 36.730	Hanover	Hanover Academy	Spatial Distribution	DGIF Freshwater Fishing Guide 2007
		South Anna River near Rt.						1	i i	
61	8-SAR097.82		2	N-F01R	N38 05.517	W78 11.400	Louisa	Boswells Tavern	Not Supporting-Fecals	305b Report Draft. Appen. B. York P.1
<u> </u>				1 0.11	1	1	1==0.00			Terres and the second of the s

Site #	River Mile	Stream Name	Priority	WBID	Latitude	Longitude	City/County	Topo Name	Problem	Reference
									On atial Biotella dia a Nana Badial	
									Spatial Distribution. Near Partial	
		Terry's Run arm of Lake							Supporting Water Section, Hg in Carp, PCB in Largemouth Bass,	305b Report. Appen. B. York P.1, 2003
60	8-TRY001.33	,	2	N FOZD	N38 08.917	W77 53.629	Cnotovlyonia	Labora		
62	8-1R1001.33	Anna	2	N-FU/R	N38 08.917	VV// 53.629	Spotsylvania	Lahore	Bluegill Sunfish, White Catfish, Carp	Data
									PCB in 2 Species, As in Bluecrab,	2000 Data Set. 305b Report. Appen. B.
63	9 WODOO 25	Wormley Creek	4	T E27E	N37 12.696	W76 28.153	York	Poquoson West	White Perch, PCB in Gizzard Shad	York P.6
63	6-WURUUU.33	Wolfliey Creek	1	1-62/6	N37 12.090	VV / 0 20.155	TOIK	Poquoson west	Willie Felcii, FCB III Gizzard Silad	TOIK F.O
64	8-YRK005.93	York River near Rt. 17 bridge		P-F24F	N37 14.573	W76 30.393	York	Yorktown	Spatial Distribution	
- 04	0-11(1000.00	Tork Triver flear fr. 17 bridge		1 -1 2-7	1407 14.070	VV70 00.000	TOIK	TORKOWII	Opatial Distribution	2000 Data Set. 305b Report. Appen. B.
65	8-YRK016.57	York River	1	T-F27E	N37 21.353	W76 38.176	Gloucester	Willamsburg	Pb in Croaker, PCB in Gizzard Shad	York P.6, 2003 Data
66	8-YRK022.70	York River	1		N37 25.100	W76 41.600	Gloucester	Gressitt	Severly Impaired (Benthics)	305b Report. Appen. B. York P.4
		York River near West Point	-						(=	
67	8-YRK031.48	at Buoy 59	1	T-F26E	N37 30.733	W76 47.583	New Kent	West Point	PCB in Gizzard Shad & Croaker	2003 Data
		<u> </u>								
	James River B	asin								
									Special Request Waste Division	
68	2-MIG000.67	Mill Creek	1	T-G15E	N37 00.780	W76 18.497	Hampton City	Hampton City	BRAC Project Fort Monroe	Waste Div Files
									Special Request Waste Division	
69	2-MIG001.49	Mill Creek	1	T-G15E	N37 01.490	W76 18.321	Hampton City	Hampton City	BRAC Project Fort Monroe	Waste Div Files
									Special Request Waste Division	
70	2-MIG002.32	Mill Creek	1	T-G15E	N37 02.096	W76 18.846	Hampton City	Hampton City	BRAC Project Fort Monroe	Waste Div Files
		James River light off Fort							Special Request Waste Division	
71	2-JMS000.50	Wool	1	T-G15E	N36 59.220	W76 18.153	Hampton City	Hampton City	BRAC Project Fort Wool	Waste Div Files
		n Embayments								
72	1AAC001.78	Accotink (Creek) Bay	1	N-A15E	N38 41.231	W77 09.589	Fairfax	Fort Belvoir	Spatial Distribution	2006 305B Report
		Accotink Creek Below								
73	1AAC011.62	Accotink Lake Dam	1	N-A15R	N38 47.457'	W77 13.037'	Fairfax	Annandale	Citizen Request for Trout Analysis	2006 Files
		Accotink Creek at Wakefield								
74	1AAC014.38	Park			N38 49.275'	W77 13.545	Fairfax	Annandale	Citizen Request for Trout Analysis	2006 Files
		Aquia Creek			N38 25.366	W77 21.319	Stafford	Widewater	Impaired, NRO Special Request	2006 305B Report
76		Chopawamsic Creek			N38 30.519	W77 19.043	Prince William	Quantico	Impaired, NRO Special Request	2006 305B Report
77	1AFOU000.45				N38 50.450	W77 03.085	Arlington	Alexandria	Impaired, NRO Special Request	2006 305B Report
78		Hunting Creek			N38 47.375	W77 03.047	Alexandria	Alexandria	Impaired, NRO Special Request	2006 305B Report
79	1ALIF000.19	Little Hunting Creek			N38 42.783	W77 04.434	Fairfax	Mount Vernon	Impaired, NRO Special Request	2006 305B Report
80		Neabsco Creek			N38 36.024	W77 15.417	Prince William	Quantico	Impaired, NRO Special Request	2006 305B Report
81		Pohick (Creek) Bay			N38 40.835	W77 10.087	Fairfax	Fort Belvoir	Impaired, NRO Special Request	2006 305B Report
82		Potomac Creek			N38 20.809	W77 18.261	Stafford	Passapatanzy	Impaired, NRO Special Request	2006 305B Report
83	1APOW001.11				N38 35.164	W77 16.097	Prince William	Quantico	Impaired, NRO Special Request	2006 305B Report
84		Quantico Creek			N38 32.299'	W77 17.337	Prince William	Quantico	Impaired, NRO Special Request	2006 305B Report
85	1AMON002.60	імопгое вау	1	P-A3TR	N38 15.048'	W76 58.304'	Westmoreland	Clonial Beach N	Impaired, PRO Special Request	2006 305B Report

Fig. 1 Chesapeake Bay & Small Coastal R. Sites (1"= 13 Miles) (497) (765) Popes Creek 346 452 70 ♦ Mt Victoria SBY 760 Crapo (206) Bivalve **◆**Toddville Clements Solomons 218 57 239 470 254 520 Allen Wingate Newark 61 Abell 242 de Crochero 489 Drayden Drayden Chance 627 205 Stratford 12 365 Coles Point Deal Island Ridge 249 Foneswood Girdletree Montross Scotland Loretto 364 113 Hague Mt Holly Hustle Kinsale 7-LTM000.80 7-POC002.30 N37° 57.027' backville Champlain, Ewell N37° 58.850' Lewisetta Caret Oldhams 7-GWR007.97 W75° 27.075' Tylerto W75° 37.900' Warsaw **V**ill N37° 52.083′ 175Y 7-SBB000.17 Ophelia Tappahannock W76° 24.217' N37° 54.767' Jenkins Bridge 7-CHI003.77 Cauthornville W75° 35.500' Burgess Hallwood N37° 55.547' W75° 23.403' Millers Tavern Tangier 7-COC000.40 Modest Town 7-IND001.80 Regina N37° 49.302' N37° 41.919' O Lee Mont 7-ASW003.36 W76° 16.873' 7-ONF000.20 Lancaster St Stephens Church W76° 21.072 N37° 51.168' N37° 42.841' 7-DYM000.00 Larieview W75° 45.194' W75° 31.865' Mollusk 200 Jamaica N37° 39.860' /illiam W16° 19.817'
Tirry Ariu opeen Courthouse
(354)
White 7-NOR003.65
White 7-NOR003.65 Hacksneck On 7-XDE000.40 Christchurch 178 (180) W75° 39.067 7-MLF002.45 7-PNK019.85 W76° 25.663' Craddockville Wake Delt ville N37° 29.566' N37° 33.547' Wharf W76° 18.317' 7-FOX002.49 W76° 33.399' N37° 24.383' GwyTT Wardtown 7-PRT001.30 W76° 32.995' lon Franktown 7-EST002.65 N37° 26.809' James Store N37° 24.078' Nassawadox W76° 32.407' W75° 48.312' Mathewe W76° 20.784' 155 Lanexa Gloudester Onemo Machipongo ◆ Zanohi N37° 24.022' valio N37° 22.600' Susan Charles W76° 29.383' Éastville White Marsh W76° 15.783' Ordinary 7-OSS000.20 Cheriton 7-NWB000.69 N37° 17.295' Seaview W75° 55.315' **&G**| W76° 21.258' 7-CHS000.84 7-SWB001.91 Sea ord N37° 11.033' N37° 04.218' Jamesto W76° 25.000' 7-CHE005.38 Townsend 7-POQ006.00 W76° 20.980' N37° 09.920' N37° 08.351' W76° 27.952' W75° 59.182' 7-RAC000.00 N37° 07.648' 7-POQ002.11 Del N37° 08.173' W75° 57.120' 7-NEW001.92 N37° 02.117' Waverly" W76° 25.983' Newport Ne W76° 21.880' 7-TBC000.60 N37° 05.815' nithfield Wakefield 7-LAW001.00 W76° 22.058' N36° 54.678' W76° 11.681' Ivor 460 (166) (60) (279) Isle Of Wight 7-LIT000.63 Nortolk 225 Zuni N36° 55.519' Virginia Beach 408 W76° 11.483' 3372 Portsmouth 59 460 Sedley 7-EBL002.54 7-LTR000.50 N36° 52.624' Courtland N36° 53.686' 7-LKN002.77 Carrsville W76° 03.941 7-MTL000.20 W76° 09.946' N36° 52.091' N36° 49.659' W76° 00.815' 7-OWL000.77 W76° 07.532' som N36° 49.330' E W75° 58.983' 189 **(13)** [17] Corapeake Moyock 1996 DeLorme Street Atlas USA



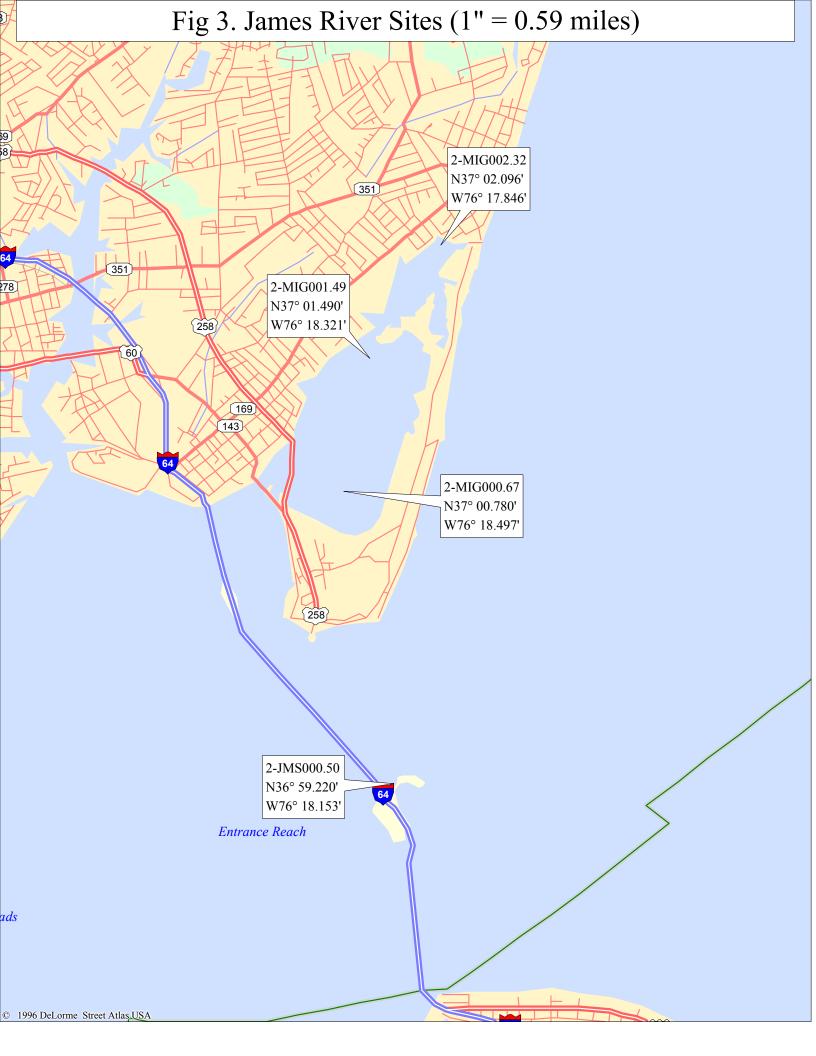


Fig 4. Potomac Sites (1"= 6.3 Miles)



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